TRICARE Data Quality Training Course

Hilton Alexandria Mark Center

February 2006

Presented By

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EIDS Overview

- **Centralized data store for the Military Health System (MHS)**
- **More than 2,500 users worldwide**
- **Collect, process, store, and distribute millions of military health care records**

Transform Data Into Information

Collect

Process

Military Health System Data Repository

Distribute

Store

Direct Care Data

Purchased Care Data

- **Managed Care Support Contractors**
  - Support military health care operations
  - Care for family members, guard/reserve, retirees and non-deployed forces
  - $36 billion contract
  - Regional organization
- **Multiple tools to document care**
  - Standardized insurance claims

Purchased Care Data

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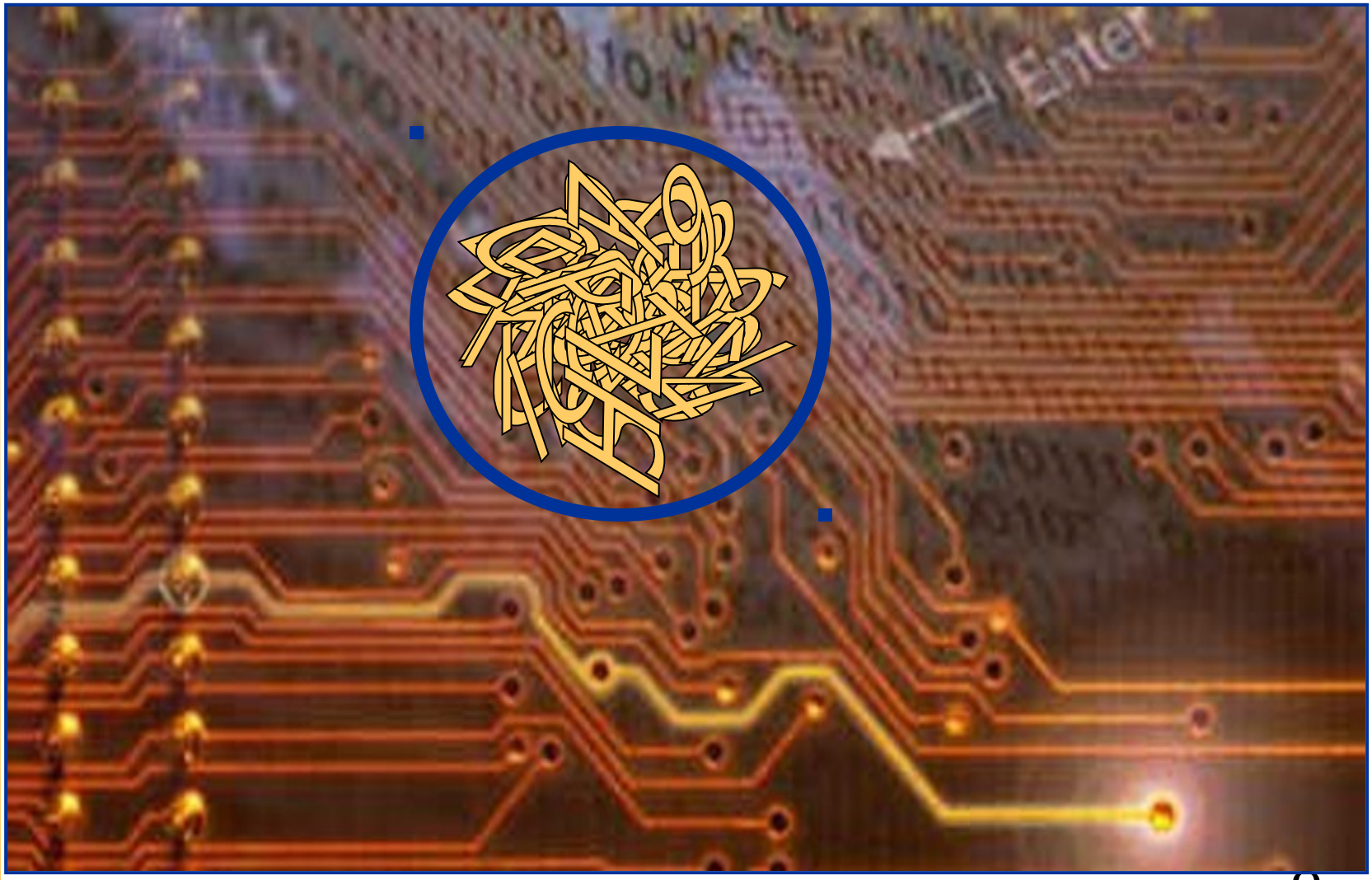
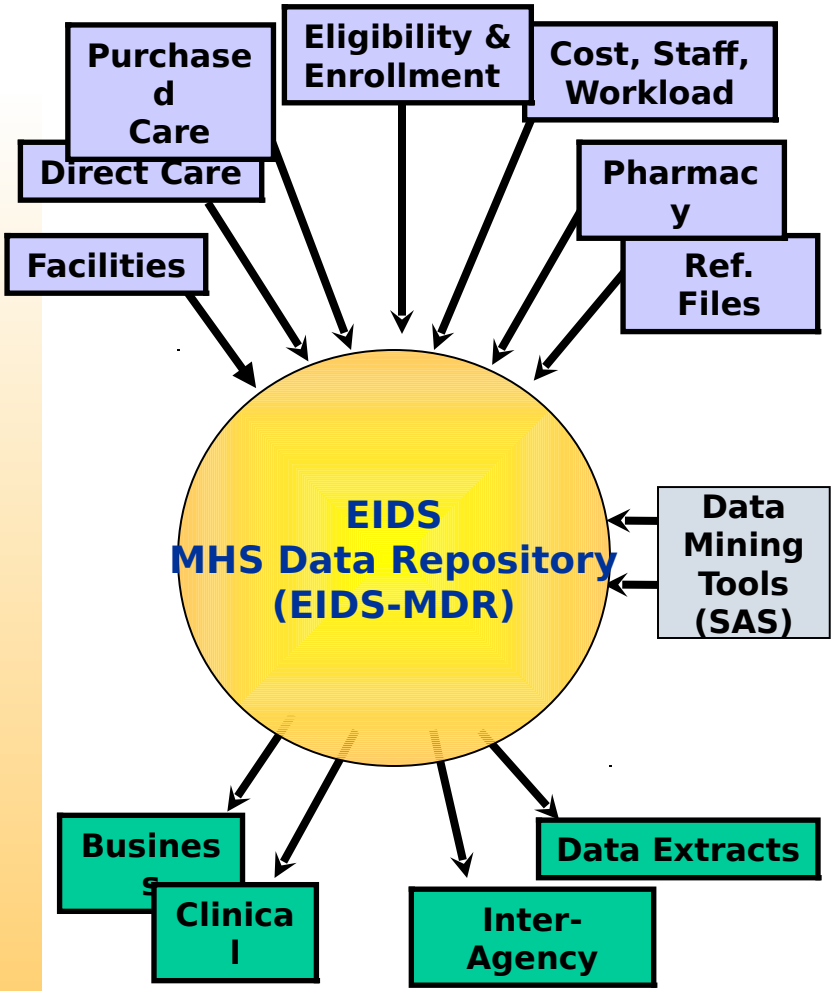
FIGHT DIABETES NOW
the GENE TRUST
SPONSOR
SEIZURES or FAINTING?
Similar symptoms.
Very different treatments.
[From Our Partner]
Delivery New Baby!
No need for "What-ifs"

Transforming Data into Information

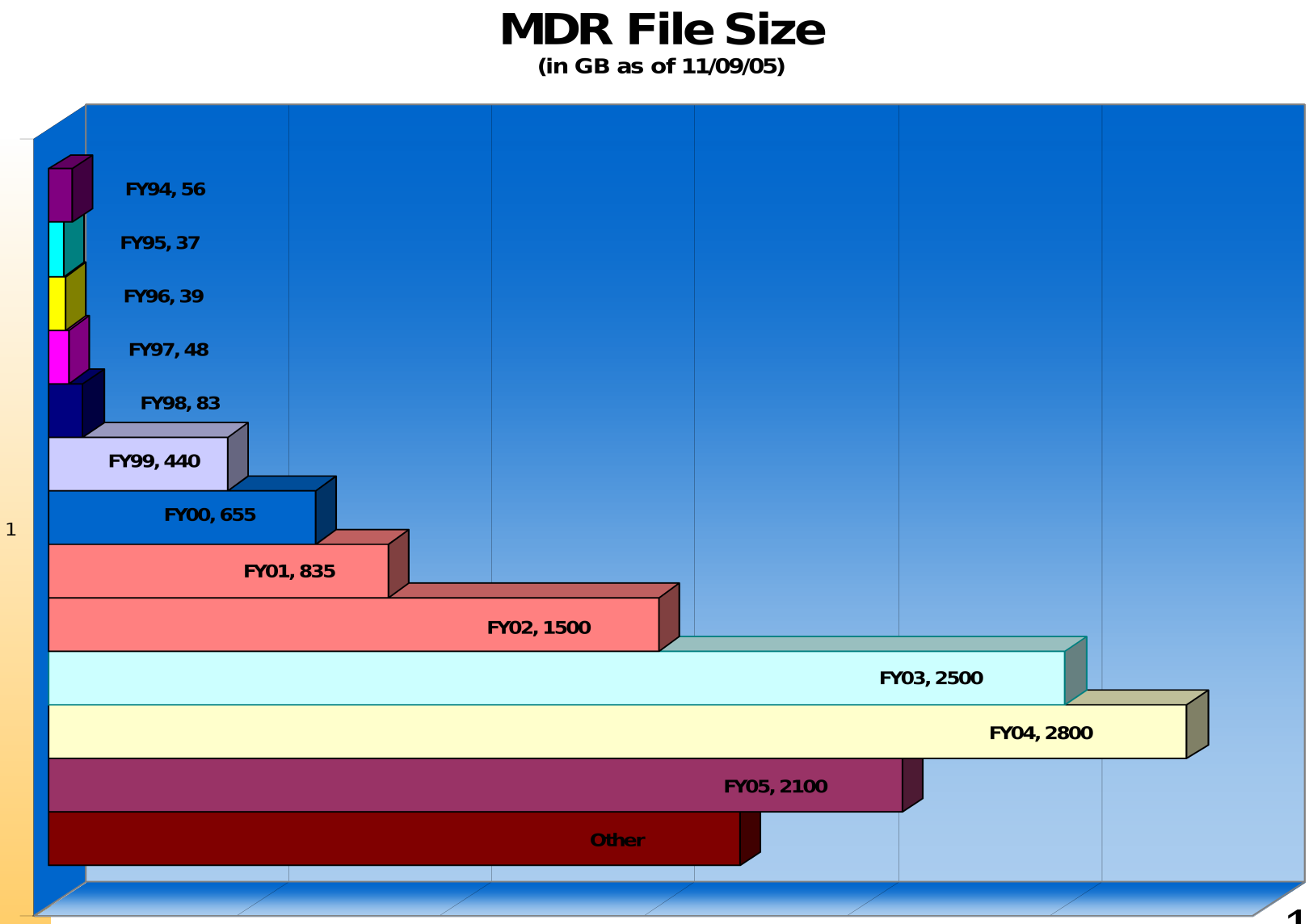


MDR & Data Management



- **Central repository:**
  - **MDR migrated to MHS enterprise architecture for decision support**
  - **EIDS applying same proven approach to Purchased Care data**

Collect/Process

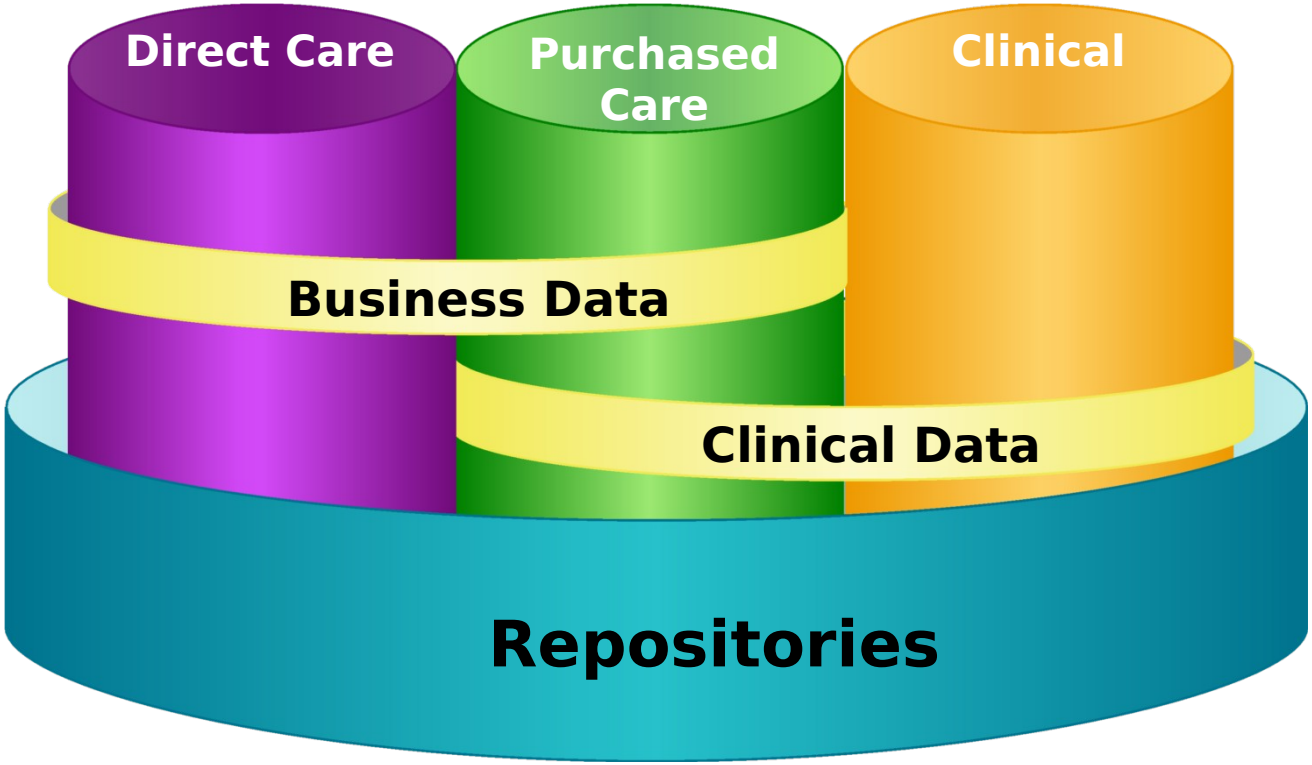


Frequency and Volume of Inbound Data

Data Type	Data Source	Inbound Periodicity	Records/Year (~M)
Population (Eligibility/Enrollment)	DMDC/DEERS	Monthly	316
Health Care Service Record (HCSR) Professional Claims	EIDS-SDCS TMA-Aurora	Monthly	441
TRICARE Encounter Data (TED)	EIDS-SDCS TMA-Aurora	Monthly	413
Pharmacy Data Transaction Service (PDTS)	WebMD	Daily & Weekly	568
Standard Ambulatory Data Record (SADR)	CHCS & ADS Hosts	Daily	500
Standard Inpatient Data Record (SIDR)	CHCS Hosts	Monthly/ Bi-weekly	152

How Much Data?

- More than 5 billion records on-line consisting of 10+ years of data



Applications and Components Distribution

Business Marts

Direct Care:

- **M2**
- **MCFAS**
- **GIS**
- *Prospective Payment*

Purchased Care:

- **CDIS (Legacy)**
- **CMIS (Legacy)**
- **CURES (Legacy)**
- *PCDIS*
- *PCMIS*
- *PCURES*
- *CRDM (15 sub-sys)*
- **HA/TA**
- **DCS**

Clinical Marts

- **PHOTO**
- **Clinical Data Mart (IOC)**
- **DMSS (Legacy)**
- *Medical Surveillance*
- *Clinical Analysis and Reporting (FOC)*
- *Provider Profiling*

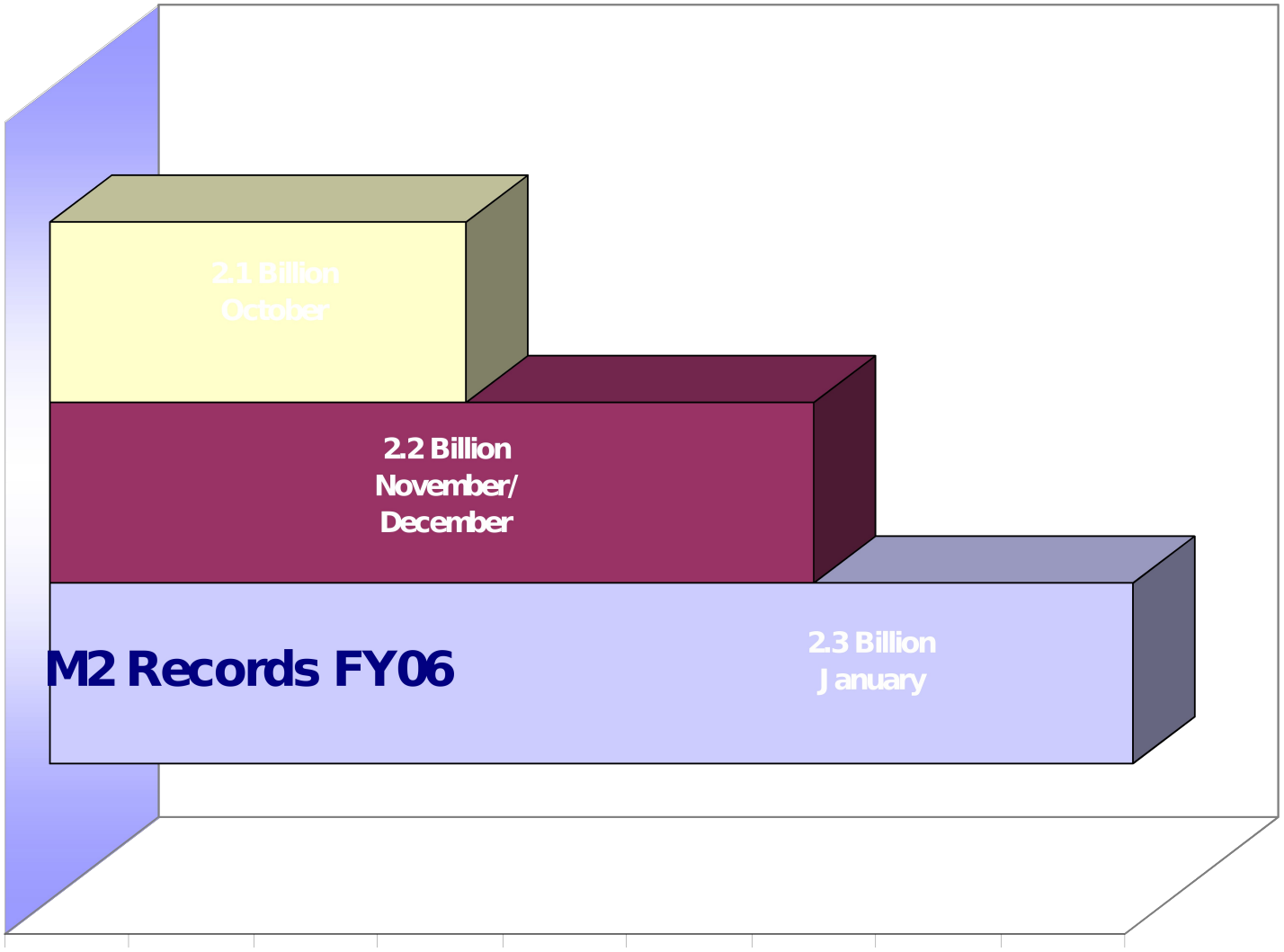
Enterprise Management:

- **MDR**
  - Purchased Care Data Warehouse
  - Business Data Repository
  - *Clinical Data Warehouse*
- **TED Processing**
  - TED ODS
  - HCSR ODS
  - Feed Node
  - Extraction Transformation Layer
- **SDCS (Legacy)**
  - TED Phase II
  - PEPR 6A
- EIDS Portal
- PEPR Portal
- FHIE/BHIE

Management Control Measures

- **Product Release (to include data)**
  - Multiple gates to assure acceptance by functional proponent
  - Design reviews (URS, PDR & CDR)
  - Testing & data validity checks
  - Each gate requires approval by functional proponent

Distribute


2.1 Billion
October
2.2 Billion
November/
December
M2 Records FY06
2.3 Billion
January

Distribute

Customer	Data Types	Outbound Frequency
Army, Navy, and Air Force Leadership	SIDR, SADR, Bundled M2 data	Monthly
Defense Medical Surveillance System (DMSS)	HCSR, SIDR, SADR	Monthly (Daily SADRs)
Global Emerging Infection Surveillance (GEIS)	Processed SADR & PDTS data (PHI stripped)	Daily
Deployment Health	SADR Data for Japan and Korea DMIS IDs	Daily
Centers for Disease Control & Prevention (CDC)	Processed SADR data (PHI stripped)	Daily
Naval Environmental Health Center (NEHC)	Processed HL7 data (PHI stripped)	Weekly
Federal Health Information Exchange (FHIE) DVA	Processed HL7 & Separatee SADR & PDTS data	Monthly
WebMD (PDTS & TMOP TED retail)	TED Error Reports & TED reject records (plus tests)	Daily
TRICARE Commercial Partners	TED Error Reports & TED reject records	Daily
Internal Data Marts	Full Data Sets	Daily, Weekly, Monthly

Who Uses EIDS?

- **TMA/Health Affairs Staff**
  - Beneficiary Services Representatives & Health Benefits Analysts
- **Military Treatment Facility Executive Staff**
  - Through Offices of the Surgeons General
- **TRICARE Regional Offices**
- **Department of Justice, DoD Criminal Investigative Services**
  - Fraud, Waste, and Abuse

Security Measures

- Information Assurance & Vulnerability Assessment (IAVA) compliant
- TMA Privacy Office oversight
- HIPAA data anonymized based on user need (e.g. role-based access)
- All records encrypted during distribution
- All data marts certified before users are permitted access

Population Health Operational Tracking & Optimization

- Provide business & clinical population health metrics

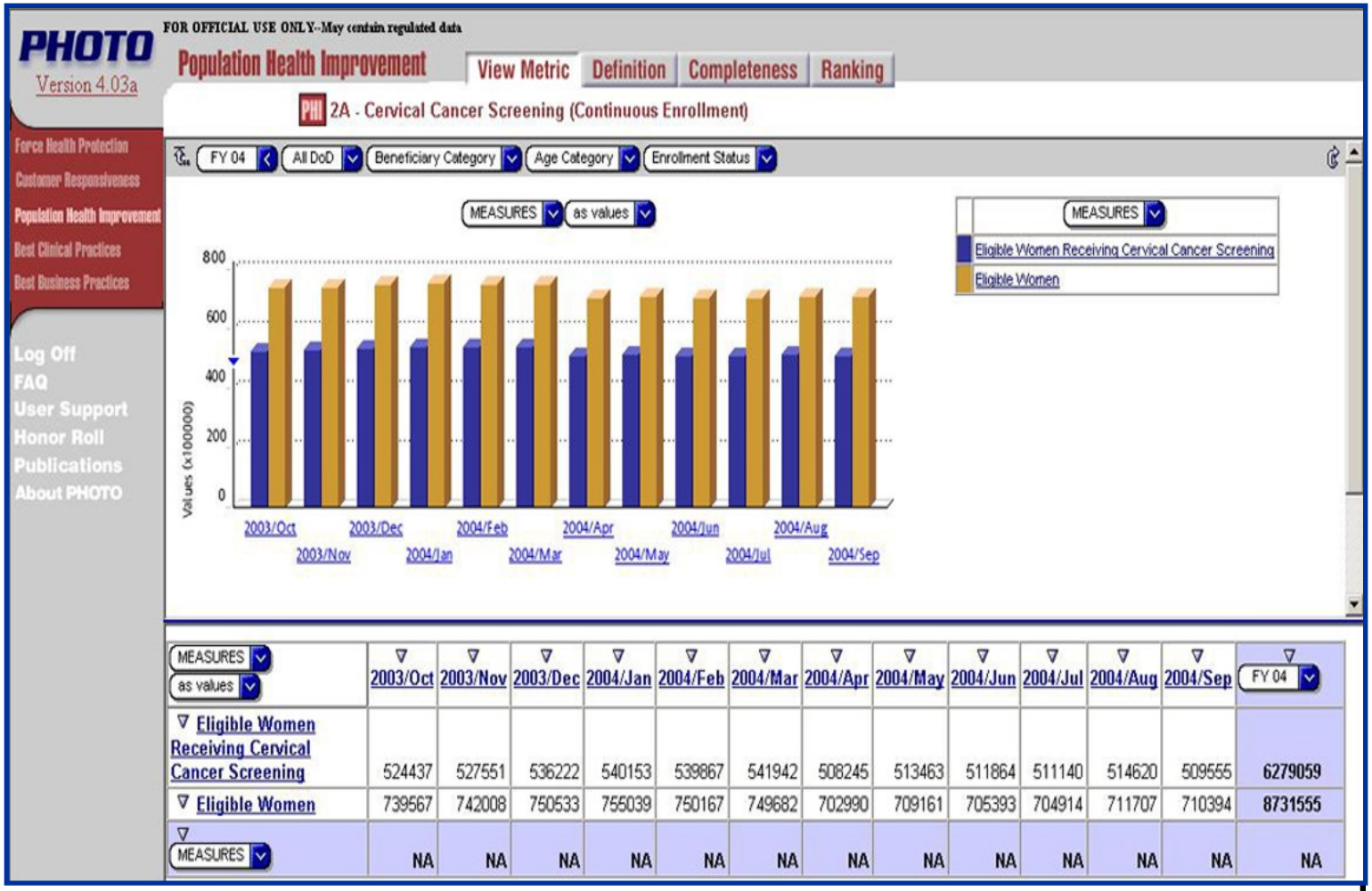


PHOTO Features

Data

- Direct care
- Purchased care
- Customer Satisfaction Surveys
- Pharmacy

Tool

- Web-based
- Simple, intuitive interface
- Summary level with drill-down capability

Users

- Decision makers at all levels
- Over 200 users
- 62% at local treatment facilities

MHS Management Analysis and Reporting Tool

- Provides analysts ‘ad-hoc’ access to MHS data

M2 Features

Data

- Workload
- Population
- Customer Satisfaction Surveys
- Encounters
- Master patient/person index
- Population eligibility

Tool

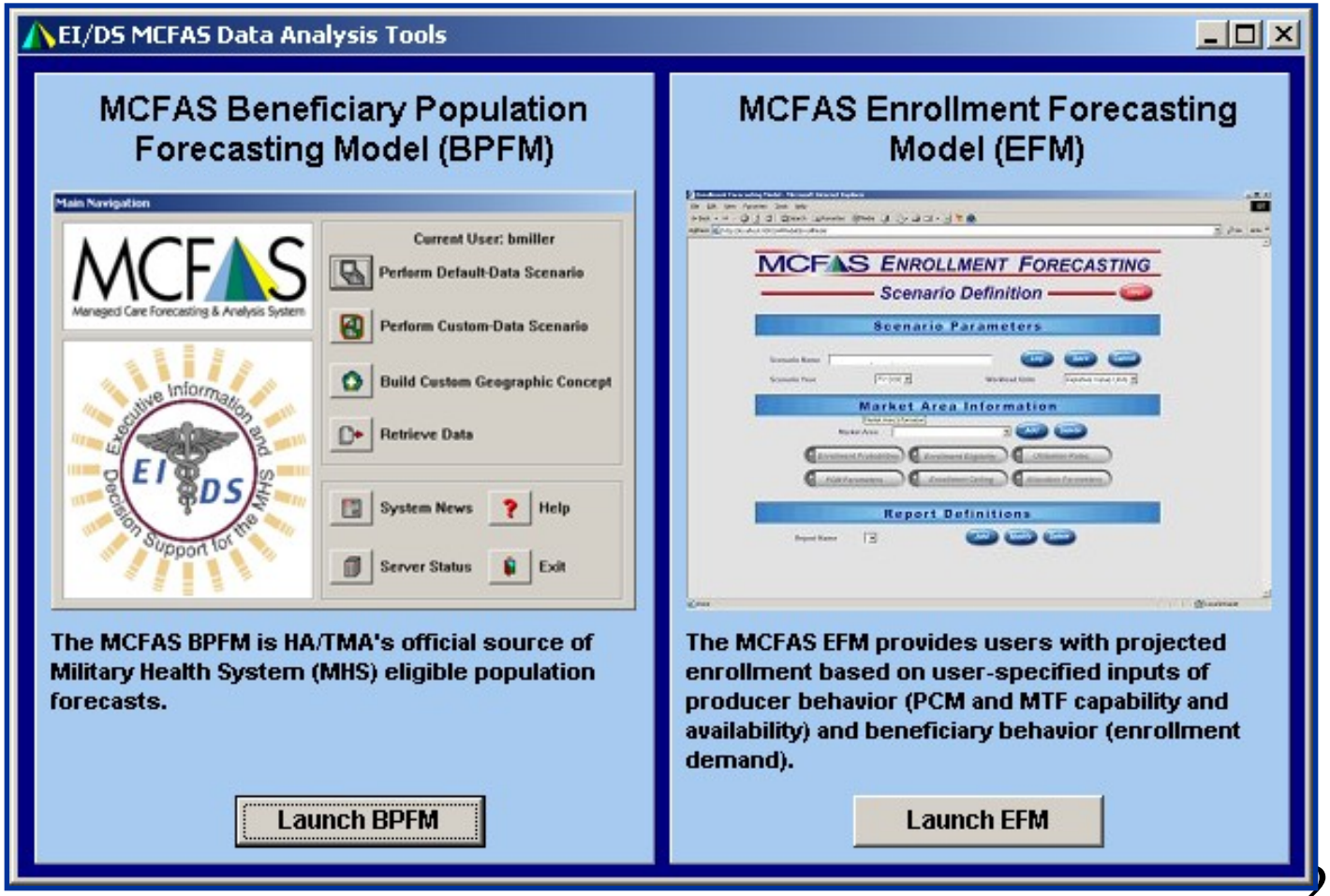
- Business Objects
- Fully ad-hoc; Windows-like interface

Users

- Data savvy, data analysts
- Trickle up/down
- Over 800 users
  - 61% at local treatment facilities

Managed Care Forecasting & Analysis System

- Provides population forecasts to support a wide range of planning and analys functions


EI/DS MCFAS Data Analysis Tools
MCFAS Beneficiary Population Forecasting Model (BPFM)
Main Navigation
MCFAS
Managed Care Forecasting & Analysis System
Current User: bmiller
Perform Default-Data Scenario
Perform Custom-Data Scenario
Build Custom Geographic Concept
Retrieve Data
System News
Help
Server Status
Exit
The MCFAS BPFM is HA/TMA's official source of Military Health System (MHS) eligible population forecasts.
Launch BPFM
MCFAS Enrollment Forecasting Model (EFM)
MCFAS ENROLLMENT FORECASTING
Scenario Definition
Scenario Parameters
Market Area Information
Report Definitions
The MCFAS EFM provides users with projected enrollment based on user-specified inputs of producer behavior (PCM and MTF capability and availability) and beneficiary behavior (enrollment demand).
Launch EFM

MCFAS Features

Data

- Population Eligibility, Enrollment, and Forecasting

Tools

- Beneficiary Population Forecasting Model (BPFM)
- Enrollment Forecasting Model (EFM)
- Geographic Information System (GIS)
- Simple intuitive web-based interfaces

Users

- Planners
- Budget/Resource Analysts
- 250 users
- 53% at local treatment facilities

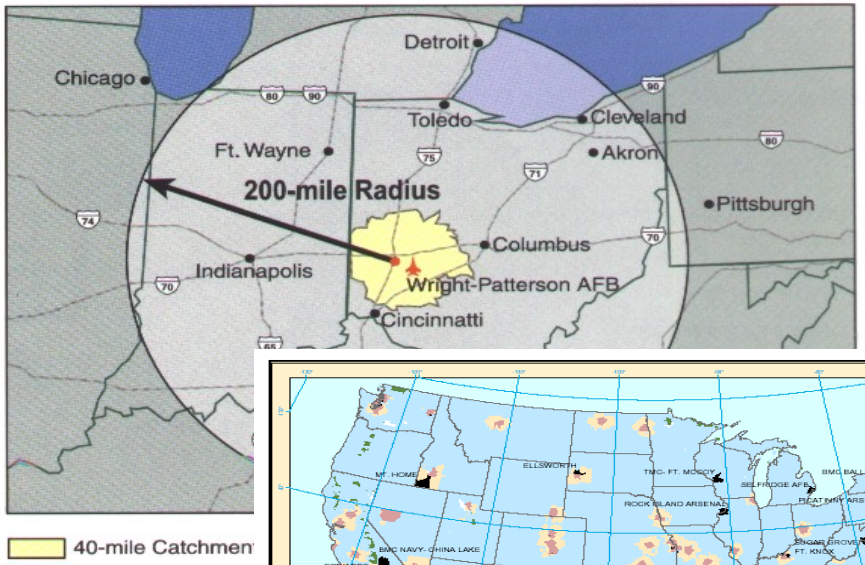
Geographic Information System (GIS

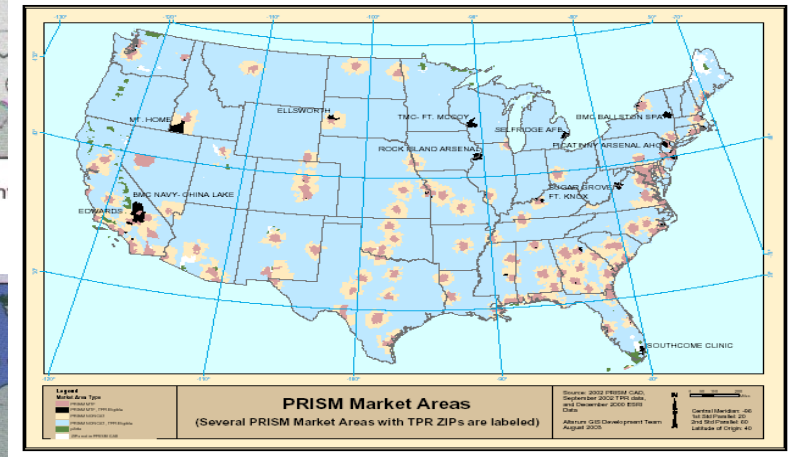
MCFAS

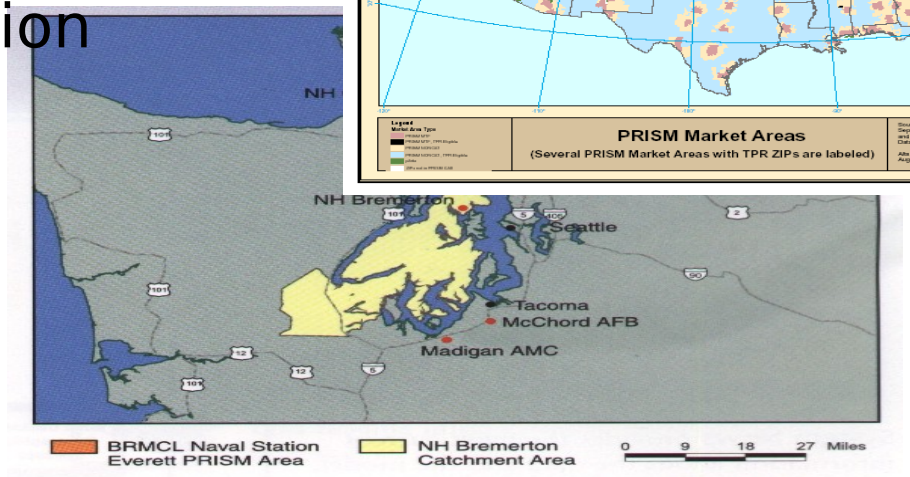
- Market Analysis
  - Population densities
  - Provider locations

- Medical Surveillance

- Facilities Management & Military Construction







GIS Report - Microsoft Internet Explorer

File Edit View Favorites Tools Help

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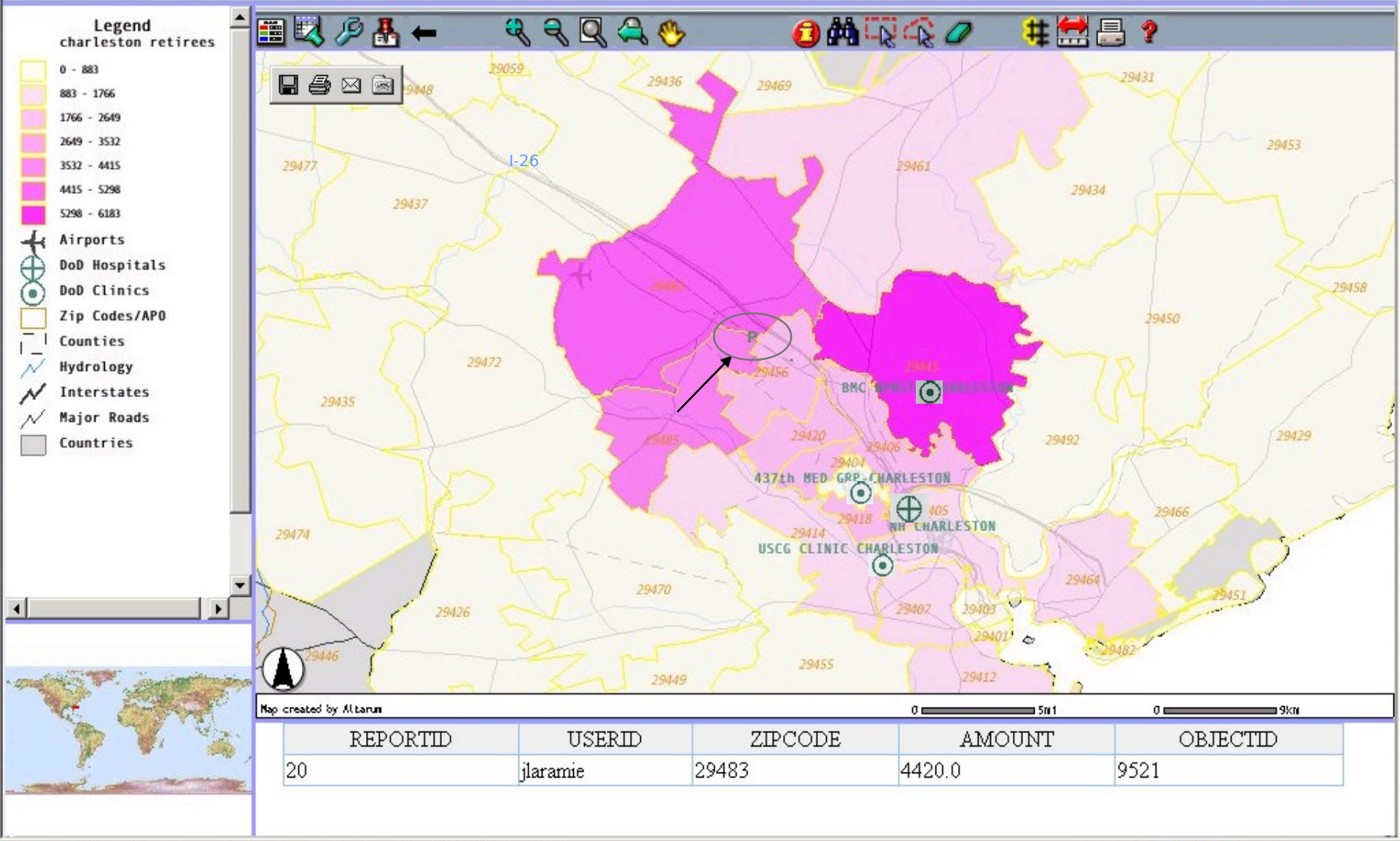
Address https://214.3.107.22/gisviewer/GISReport Go Links

GIS Report

Zoom In



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20	jlaramie	29483	4420.0	9521

Map: -79.7 , 32.71 -- Image: 744 , 469 -- ScaleFactor: 0.0011224092290564164

Internet

Legacy Reporting Tools

- Provide MHS the ability to analyze the new TRICARE Encounter Data (**TED**) purchased care claims to replace the historical Healthcare Service Record (**HCSR**) records

- Co-locate **TED** and **HCSR** data in the same environment to optimize analysis and minimize sustainment

Legacy Reporting Tools

Data

- Purchased Care Claims

Tools

- CHAMPUS/TRICARE Utilization Reporting and Evaluation System (CURES)
- CHAMPUS/TRICARE Medical Information System (CMIS)
- Care Detail Information System (CDIS)
- Duplicate Claims System (DCS)

Users

- MHS managed care analysts, healthcare planners, resource managers, and financial analysts
- Beneficiary Counseling and Assistance Coordinators, Defense Criminal Investigative Service, Department of Justice analysts
- Over 500 Users -- 75% MCSC and HA/TMA users

Patient Encounter Processing & Reporting (PEPR) Transition

Legacy System:

- **CURES**
  CHAMPUS/TRICARE Utilization Reporting & Evaluation System
- **CDIS**
  Care Detail Information System
- **CMIS**
  CHAMPUS/TRICARE Medical Information System

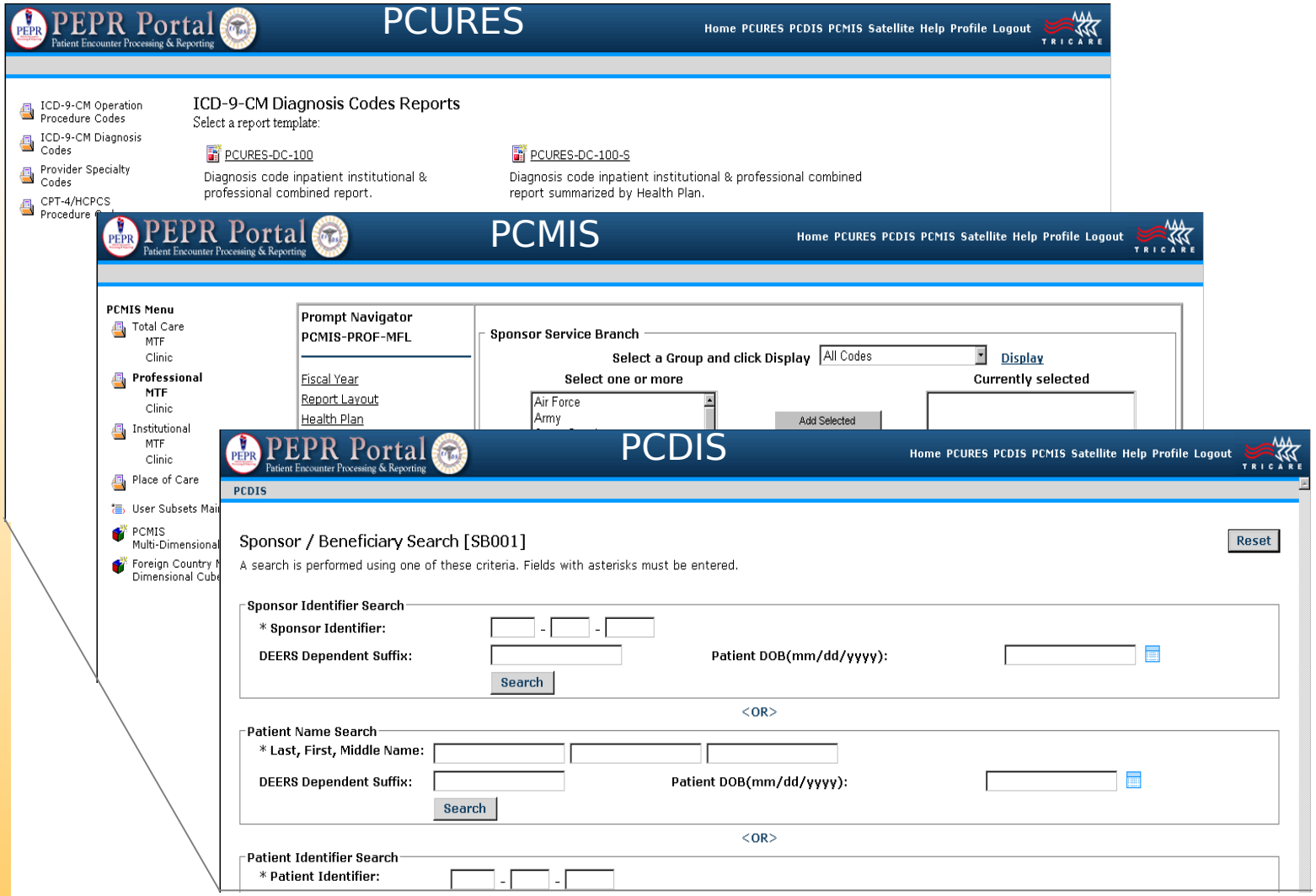
Target module:

PCURES
Purchased Care Utilization Reporting & Evaluation System

PCDIS
Purchased Care Detail Information System

PCMIS
Purchased Care Medical Information System

Patient Encounter Processing & Reporting (PEPR) Transition

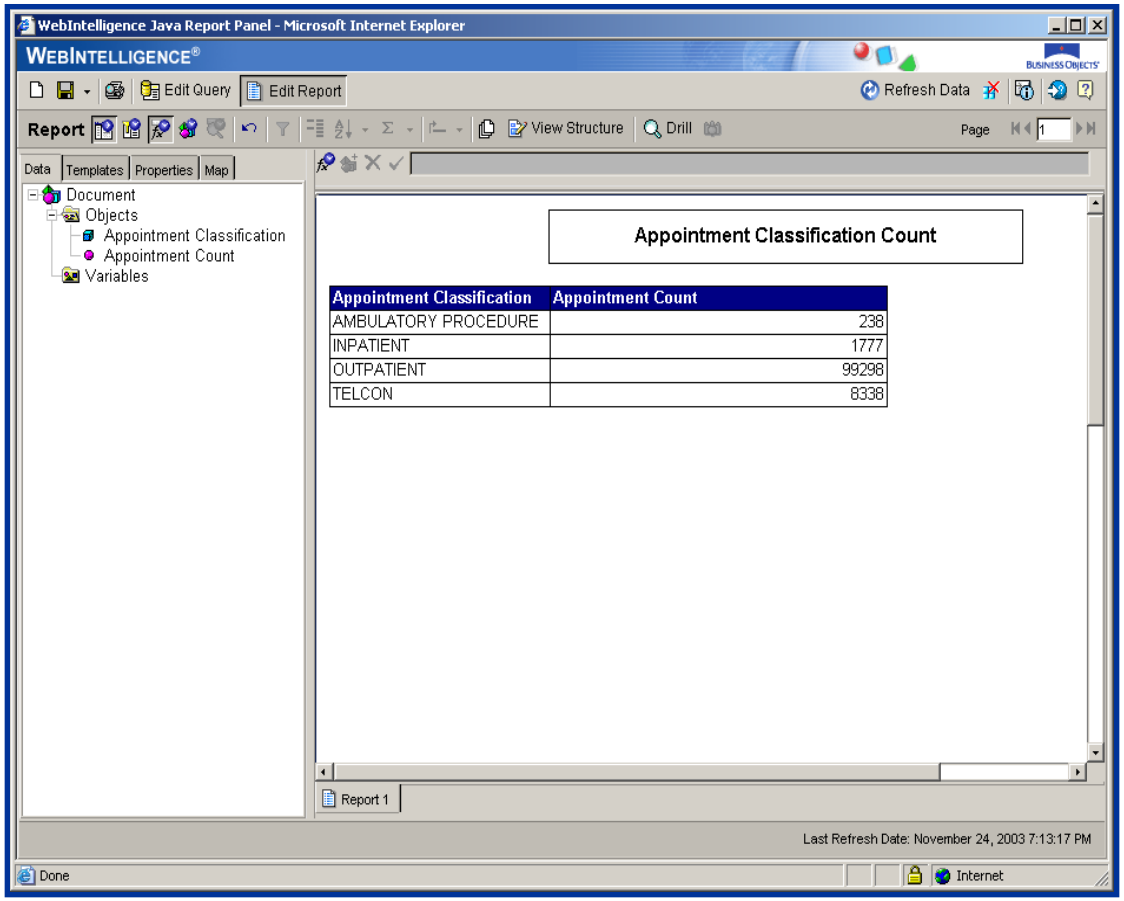


EIDS Data Marts:

Coming Soon

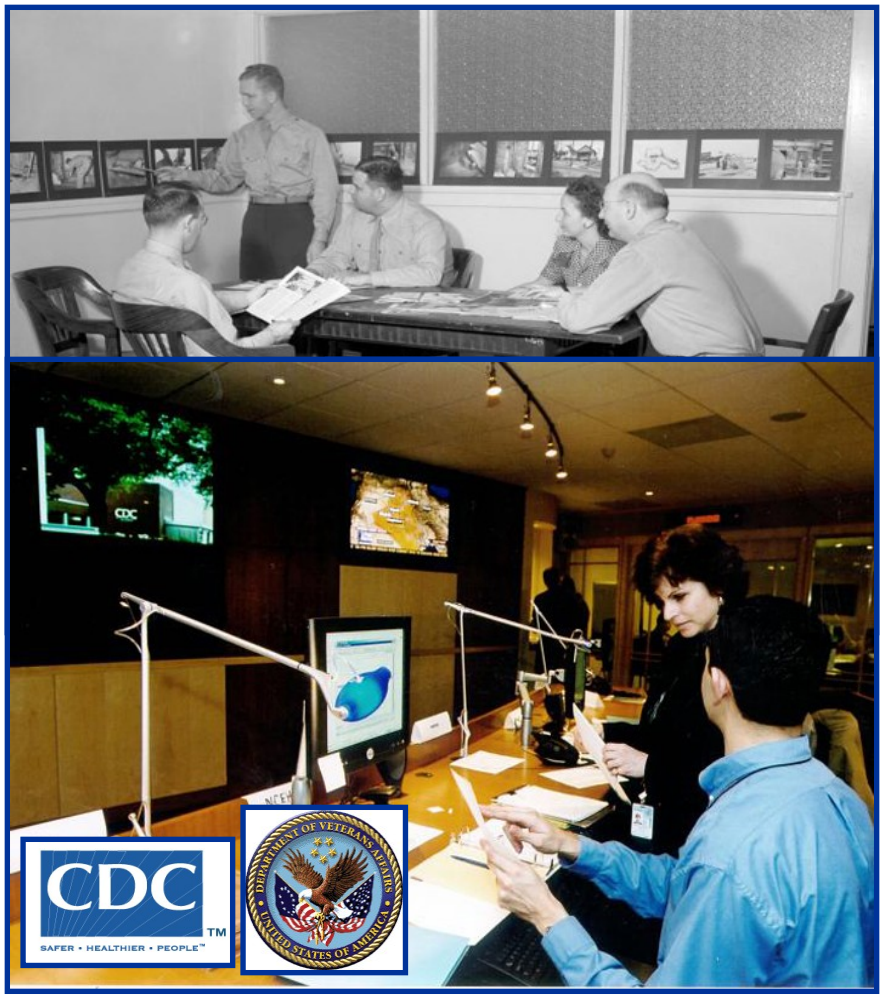
Clinical Data Mart (CDM)

- **CDM**
  - Access to data from AHLTA for report/analysis
  - Data available for 60-months
  - Ad-hoc queries
    - Population health
    - Upgraded enterprise health record

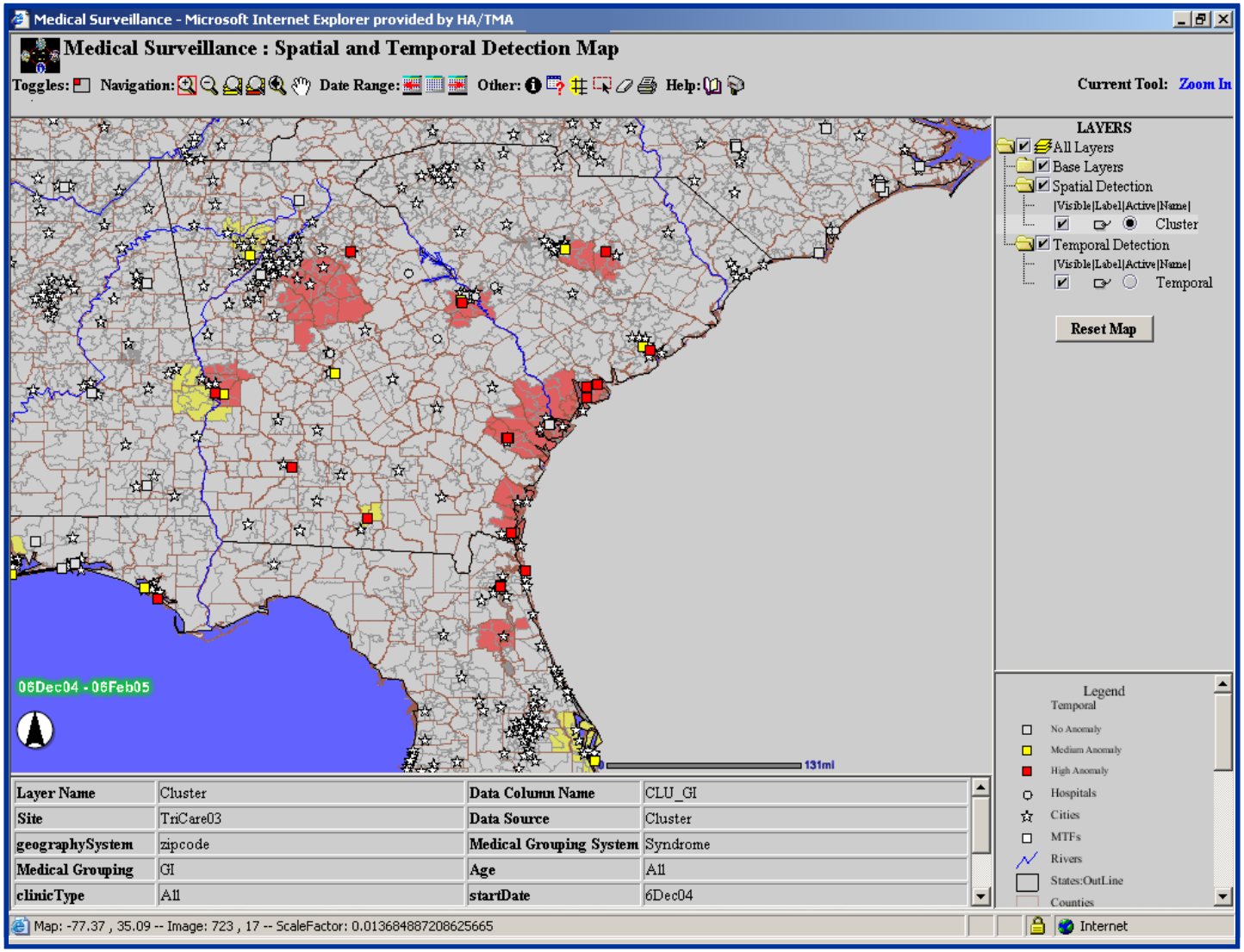


Medical Surveillance

- Comprehensive DoD Medical Surveillance capability
- Functional requirements pulled from a variety of sources to support preventive medicine
- Syndromic



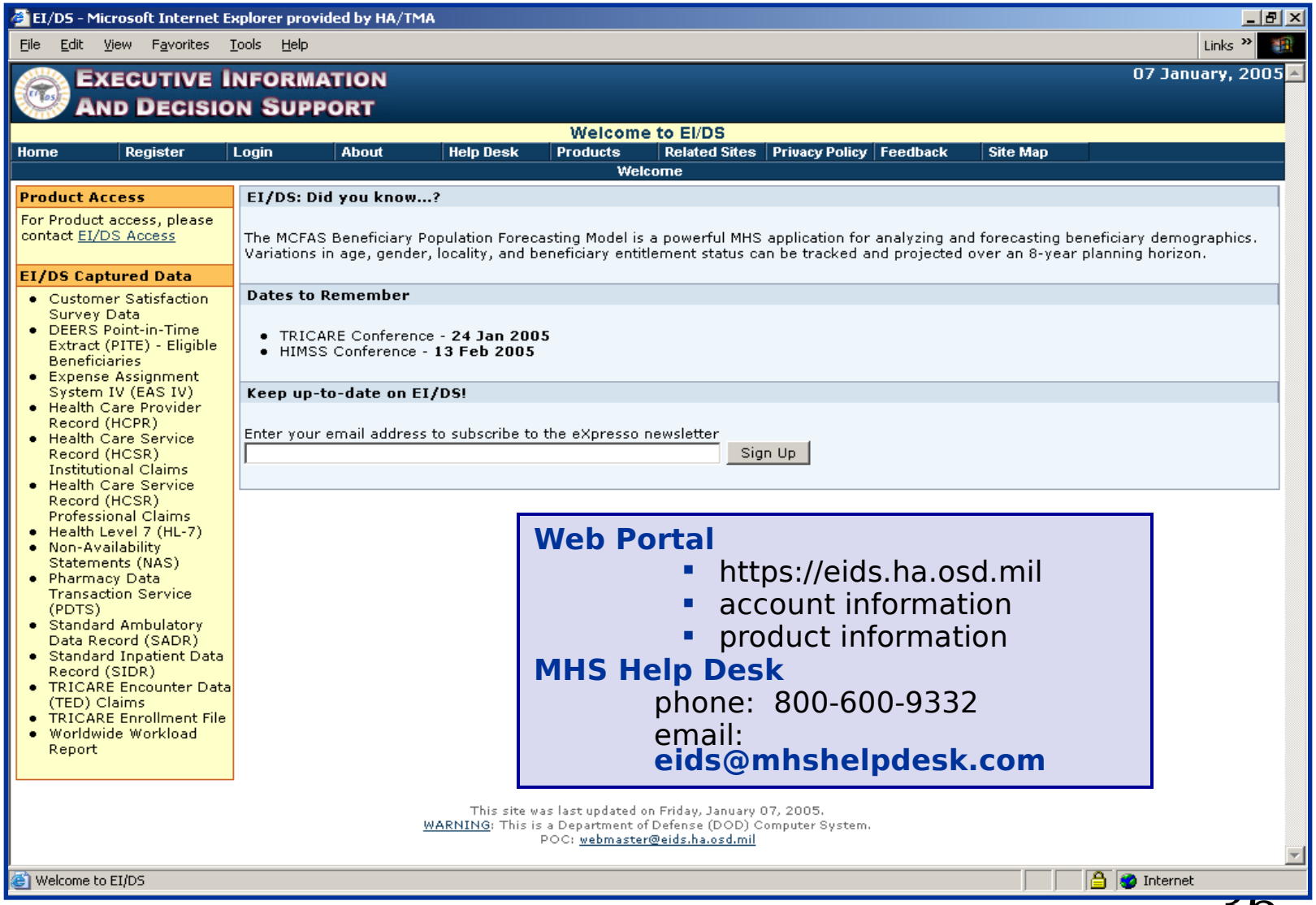
Medical Surveillance



In Summary

- **Central data repository for the Military Healthcare System (MHS)**
- **Business information provided to leadership from Congress to local clinic Commanders**
- **Expanding into clinical information for population health at the provider level**
- **Key to success – partnering with user community to maximize information sharing**

Contact EIDS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EXECUTIVE INFORMATION AND DECISION SUPPORT
07 January, 2005
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EI/DS Captured Data
Customer Satisfaction Survey Data
DEERS Point-in-Time Extract (PITE) - Eligible Beneficiaries
Expense Assignment System IV (EAS IV)
Health Care Provider Record (HCPR)
Health Care Service Record (HCSR) Institutional Claims
Health Care Service Record (HCSR) Professional Claims
Health Level 7 (HL-7)
Non-Availability Statements (NAS)
Pharmacy Data Transaction Service (PDTS)
Standard Ambulatory Data Record (SADR)
Standard Inpatient Data Record (SIDR)
TRICARE Encounter Data (TED) Claims
TRICARE Enrollment File
Worldwide Workload Report
EI/DS: Did you know...?
The MCFAS Beneficiary Population Forecasting Model is a powerful MHS application for analyzing and forecasting beneficiary demographics. Variations in age, gender, locality, and beneficiary entitlement status can be tracked and projected over an 8-year planning horizon.
Dates to Remember
TRICARE Conference - 24 Jan 2005
HIMSS Conference - 13 Feb 2005
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Welcome to EI/DS
Internet

Questions?